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DATE: March 30, 2009

PTO IDENTIFIER: Application Number 10/773,989-Conf. #7098
Patent Number

Inventor: Robert K. BARR et al.

MESSAGE TO: Examiner: Connie P. Johnson - Group Art Unit 1795

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PAGES (Including Cover Sheet): 22

CONTENTS: Transmittal of Appeal Brief (3 pages)
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Application No. (if known): 10/773,989

Attorney Docket No.: 52183

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Transmittal of Appeal Brief (3 pages)
Appeal Brief (17 pages)

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Practitioner's Docket No. G52183

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Robert K. BARR et al.

Serial No.: 10/773,989

Group No.: 1795

Filed: February 6, 2004

Examiner: Connie P. Johnson

For: IMAGING METHODS

Mail Stop Appeal Brief-Patent
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450TRANSMITTAL OF APPEAL BRIEF
(PATENT APPLICATION-37 C.F.R. SECTION 1.192)

1. Transmitted herewith the APPEAL BRIEF in this application, with respect to the Notice of Appeal filed on 02/25/2009.

2. STATUS OF APPLICANT

This application is on behalf of

- ☒ other than a small entity.
☐ a small entity.

A statement:

- ☐ is attached.
☐ was already filed.

CERTIFICATE OF MAILING/TRANSMISSION (37 C.F.R. 1.8(a))

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Deanna M. Rivernider

(type or print name of person certifying)

Date: 3/30/2009

(Transmittal of Appeal Brief--page 1 of 3)

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3. FEE FOR FILING APPEAL BRIEF

Pursuant to 37 C.F.R. Section 1.17(c), the fee for filing the Appeal Brief is:

☐ small entity \$270.00

☒ other than a small entity \$540.00

Appeal Brief fee due \$ 540.00

4. EXTENSION OF TERM

NOTE: The time periods set forth in 37 C.F.R. 1.192(a) are subject to the provision of Section 1.136 for patent applications. 37 C.F.R. 1.191(d). See also Notice of November 5, 1985 (1060 O.G. 27).

NOTE: As the two-month period set in Section 1.192(a) for filing an appeal brief is not subject to the six-month maximum period specified in 35 U.S.C. 133, the period for filing an appeal brief may be extended up to seven months. 62 Fed. Reg. 53,131, at 53,156; 1203 O.G. 63 at 84. Oct. 10, 1997.

The proceedings herein are for a patent application and the provisions of 37 C.F.R. Section 1.136 apply.

(complete (a) or (b), as applicable)

(a) ☐ Applicant petitions for an extension of time under 37 C.F.R. Section 1.136 (fees: 37 C.F.R. Section 1.17(a)(1)-(5)) for the total number of months checked below:

	Extension (months)	Fee for other than small entity	Fee for small entity
<input type="checkbox"/>	one month	\$ 130.00	\$ 65.00
<input type="checkbox"/>	two months	\$ 490.00	\$ 245.00
<input type="checkbox"/>	three months	\$1,110.00	\$ 555.00
<input type="checkbox"/>	four months	\$2,350.00	\$1175.00

Fee: \$ _____

If an additional extension of time is required, please consider this a petition therefor.

(check and complete the next item, if applicable)

☐ An extension for _____ months has already been secured, and the fee paid therefor of \$ _____ is deducted from the total fee due for the total months of extension now requested.

Extension fee due with this request \$ _____

(Transmittal of Appeal Brief--page 2 of 3)

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or

- (b) ☒ Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

5. TOTAL FEE DUE

The total fee due is:

Appeal brief fee \$ 540.00

Extension fee (if any) \$ _____

TOTAL FEE DUE \$ 540.00

6. FEE PAYMENT

☐ Attached is a check in the sum of \$ _____.☒ Charge Account No. 18-1850 the sum of \$ 540.00.

A duplicate of this transmittal is attached.

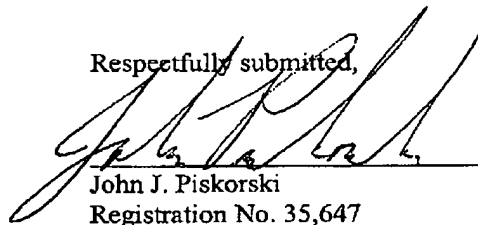
7. FEE DEFICIENCY

☒ If any additional extension and/or fee is required, this is a request therefor and to charge Account No. 18-1850.

AND/OR

☒ If any additional fee for claims is required, charge Account No. 18-1850.

Respectfully submitted,


John J. Piskorski
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(Transmittal of Appeal Brief--page 3 of 3)

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

52183

In re application of:
Barr et al.

Serial No.: 10/773,989

Filed: February 6, 2004

For: IMAGING METHODS

:
:
: Group Art Unit: 1795

: Examiner: Connie P. Johnson

Commissioner for Patents
P.O. BOX 1450
Alexandria, VA 22313-1450

APPEAL BRIEF

Dear Sir:

Applicants respectfully appeal the decision of the Examiner, mailed December 5, 2008, finally rejecting claims 1-2, 4-7, 10, 19 and 20.

03/30/2009 JVONG1 00000015 181850 10773989
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I. REAL PARTY IN INTEREST

The real party in interest in this appeal is the assignee of the application Rohm and Haas Electronic Materials LLC.

II. RELATED APPEALS AND INTERFERENCES

Related patent application serial numbers 11/378,918, 11/378,919 and 11/378,933, which are assigned to Rohm and Haas Electronic Materials LLC, are also on appeal.

III. STATUS OF THE CLAIMS

Claims 1-20 have been presented in this application.

Claims 3, 8, 9, and 11-18 were canceled.

Claims 1-2, 4-7, 10 and 19-20 stand rejected.

Claims 1-2, 4-7, 10 and 19-20 are presently on appeal (see the attached Claim Appendix).

IV. STATUS OF AMENDMENTS (AFTER FINAL REJECTION)

No amendment was filed in response to the Final Rejection mailed December 5, 2008.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

The invention is a method comprising: a) applying an imaging composition comprising one or more cyclopentanone based conjugated photosensitizers and one or more reducing agents chosen from quinone compounds and acyl esters of triethanolamine to a work piece; and b) projecting a 3-D image with a laser onto the imaging composition at 5mW or less to affect a color or shade change in the imaging composition to form an image on the imaging composition. See claim 1, specification, page 3, lines 27-31, page 5, lines 3-4, page 6, lines 13-16 and lines 22-25, page 23, lines 23-25, page 24, lines 13-18, and page 26, lines 8-22.

The invention also is a method comprising: a) providing an imaging composition comprising one or more cyclopentanone based conjugated photosensitizers and one or more reducing agents chosen from quinone compounds and acyl esters of triethanolamines, the imaging composition is applied to a film substrate with an adhesive applied to an opposite side of the film substrate; b) applying the imaging composition on the film substrate to a work piece; c) providing a 3-D imaging system for projecting a 3-D image with a laser onto the imaging composition; d) measuring a distance between a projector of the 3-D imaging system and at least one reference sensor on the work piece; e) applying algorithms to position the 3-D image onto the imaging compositions; and f) applying the 3-D image onto the imaging composition to form an image on the imaging composition. See claim 5, specification, page 3, lines 27-31, page 5, lines 3-4, page 6, lines 13-16 and lines 22-25, page 7, lines 6-8, page 9, lines 23-24, page 15, lines 13-15, page 23, lines 23-25, page 24, lines 13-18, and page 26, lines 8-22.

VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

1. Whether claims 1, 2 and 4 would have been obvious under 35 U.S.C. §103(a) over U.S. 2002/0064728A1 to Weed et al. in view of U.S. 5,112,721 to Kuchta in view of U.S. 6,547,397 to Kaufman et al. and further in view of Applicants' admission.
2. Whether claims 5-7, 10, 19 and 20 would have been obvious under 35 U.S.C. §103(a) over U.S. 6,547,397 to Kaufman et al. in view of U.S. 6,618,174 to Parker et al., U.S. 2002/0064728 A1 to Weed et al., U.S. 5,112,721 to Kuchta and in view of Applicants' admission.

VII. ARGUMENTS

ISSUE 1: Whether claims 1, 2 and 4 would have been obvious under 35 U.S.C. §103(a) over U.S. 2002/0064728 to Weed et al. in view of U.S. 5,112,721 to Kuchta in view of U.S. 6,547,397 to Kaufman et al. and further in view of Applicants' admission.

It is well settled that the applied document or combination of documents must teach or suggest all the limitations of the claims. See *In re Wilson*, 424 F.2d 1382, 1385, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970) ("All words in a claim must be considered in judging the patentability of that claim against the "prior art"). None of the applied documents alone or in combination teaches or suggests all of the elements of a method comprising:

- a) applying an imaging composition comprising one or more cyclopentanone based conjugated photosensitizers and one or more reducing agents chosen from quinone compounds and acyl esters of triethanolamines to a work piece; and
- b) projecting a 3-D image with a laser onto the imaging composition at 5 mW or less to affect a color or shade change in the imaging composition to form an image on the imaging composition.

Weed et al. are directed to photoimageable and photopolymerizable compositions which have sensitizers in the near IR region (Abstract, page 1, paragraph [0007], page 3, paragraph [0037], page 8, paragraph [0106] and paragraphs [0108] to [0118] and page 9, paragraphs [0119] to [0123]), not the visible region. The cyclopentanone based conjugated photosensitizers and reducing agents of present claim 1 are sensitive to light at 5mW or less. The 5mW or less is in the visible range (specification, page 34, lines 10-11), not the IR region as disclosed in Weed et al. In contrast, Kuchta disclose sensitizers which are sensitive for the visible region of the spectrum (Col. 1, lines 9-10), not the near IR region of the spectrum. Accordingly, the Final Rejection's allegation at page 3, lines 11-14 that Kuchta's sensitizers fit the description of the sensitizers of Weed et al. is error. A person of ordinary skill in the art reading the disclosures of Weed et al. and Kuchta would have had no reason or motivation to substitute the cyclopentanones of Kuchta for the IR sensitive compounds of Weed et al.

Further, it is well settled that a proposed modification of an applied document is inappropriate for an obviousness inquiry when the modification of the applied document renders

that document inoperable for its intended purpose. See *In re Fritch*, 972 F.2d at 1265 n. 12, 23 U.S.P.Q.2d at 1783 n. 12. Substituting the visible light sensitive cyclopentanones of Kuchta for the IR sensitizers of Weed et al. would render the compositions of Weed et al. inoperable for its intended purpose. Moreover, the suggested combination of Weed et al. with Kuchta is improper under 35 U.S.C. §103 because it would require a substantial reconstruction and redesign of the elements shown in Weed et al. as well as a change in the basic principles under which Weed et al. was designed. See *In re Ratti*, 270 F.2d 810, 813, 123 U.S.P.Q. 349, 352 (C.C.P.A. 1959). Since Weed et al. are directed to a composition which is sensitive to light in the IR region of the spectrum, not the visible region as the compositions of Kuchta, to substitute the visible light sensitive sensitizers of Kuchta for the IR sensitive compounds of Weed et al. would require a substantial reconstruction and redesign of the elements of Weed et al., thus the combination of Weed et al. with Kuchta is improper under 35 U.S.C. §103.

Although Kaufman et al. disclose applying a 3D image on a contoured surface, Kaufman et al. alone or in combination with Weed et al. or Kuchta do not suggest the desirability of modifying Kaufman et al. to include a photoimageable composition on the contoured surface of Kaufman et al. See *In re Gordan*, 733, F.2d 900, 902, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984) ("The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification."). Kaufman et al. are directed to a method of using a 3D laser to accurately measure the distance between the laser source and a work piece and properly project the 3D image on the work piece (Col. 3, lines 25-40). No imaging composition is taught or suggested as part of the method of Kaufman et al. to determine the distance from the laser source and the contoured surface. Based on the teachings of Kaufman et al., their apparatus and method are sufficient for achieving their purpose without a light sensitive composition. Accordingly, there would have been no desirability of applying the light sensitive compositions of Weed et al. or Kuchta on the contoured surface of Kaufman et al. to measure the distance from the laser to the contoured surface.

ISSUE 2: Whether claims 5-7, 10, 19 and 20 would have been obvious under 35 U.S.C. §103(a) over U.S. 6,547,397 to Kaufman et al. in view of U.S. 6,618,174 to Parker et al., U.S.

2002/0064728 to Weed et al., U.S. 5,112,721 to Kuchta and further in view of Applicants' admission.

It is well settled that the applied document or combination of documents must teach or suggest all the limitations of the claims. See *In re Wilson*, 424 F.2d 1382, 1385, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970) ("All words in a claim must be considered in judging the patentability of that claim against the "prior art"). None of the applied documents alone or in combination teaches or suggests all of the elements of a method comprising:

- a) providing an imaging composition comprising one or more cyclopentanone based conjugated photosensitizers and one or more reducing agents chosen from quinone compounds and acyl esters of triethanolamines, the imaging composition is applied to a film substrate with an adhesive applied to an opposite side of the film substrate;
- b) applying the imaging composition on the film substrate to a work piece;
- c) providing a 3-D imaging system for projecting a 3-D image with a laser onto the imaging composition;
- d) measuring a distance between a projector of the 3-D imaging system and at least one reference sensor on the work piece;
- e) applying algorithms to position the 3-D image onto the imaging composition; and
- f) applying the 3-D image onto the imaging composition at 5 mW or less to affect a color or shade change in the imaging composition to form an image on the imaging composition.

No where do Kaufman et al. teach or suggest projecting a 3-D image with a laser on any type of imaging composition, let alone on an imaging composition which changes color or shade upon application of the 3-D image at 5mW or less as recited in claim 5. Kaufman et al. only disclose applying a 3-D image to a work piece such as a contoured airplane body. Further, Kaufman et al. alone or in combination with Parker et al., Weed et al., Kuchta or Applicants' admission do not suggest the desirability of modifying Kaufman et al. to include a photoimageable composition on the contoured surface. See *In re Gordan*, 733, F.2d 900, 902, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984) ("The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification."). Kaufman et al. are directed to a method of using a 3D laser to accurately

measure the distance between the laser source and a work piece and properly projecting the 3D image on the work piece (Col. 3, lines 25-40). There would have been no desirability to modify Kaufman et al. by applying an imaging composition on the contoured surface of a substrate. There is no teaching or suggestion that such a modification would aid or improve the distance measuring process of Kaufman et al. Based on the teachings of Kaufman et al., their apparatus and method are sufficient for achieving their purpose without a light sensitive composition.

Moreover, the Final Rejection's allegation that Figure 1 of Kaufman et al. is the same as Figure 1 of the present application is error. The description of Figure 1 of Kaufman et al. does not teach or even suggest an imaging composition on a substrate (Col. 5, lines 54-63). In contrast, Figure 1 of the present application discloses the presence of an imaging composition on the substrate (specification, page 8, lines 11-16).

Weed et al. are directed to photoimageable and photopolymerizable compositions which have sensitizers in the near IR region (Abstract, page 1, paragraph [0007], page 3, paragraph [0037], page 8, paragraph [0106] and paragraphs [0108] to [0118] and page 9, paragraphs [0119] to [0123]), not the visible region as recited in present claim 5, i.e., 5mW or less. In contrast, Kuchta disclose sensitizers which are sensitive for the visible region of the spectrum (Col. 1, lines 9-10), not the near IR region of the spectrum. A person of ordinary skill in the art reading the disclosures of Weed et al. and Kuchta would have had no reason or motivation to substitute the cyclopentanones of Kuchta for the IR sensitive compounds of Weed et al. It is well settled that a proposed modification is inappropriate for an obviousness inquiry when the modification of an applied document renders that document inoperable for its intended purpose. See *In re Fritch*, 972 F.2d at 1265 n. 12, 23 U.S.P.Q.2d at 1783 n. 12. Substituting the visible light sensitive cyclopentanones of Kuchta for the IR sensitizers of Weed et al. would render the compositions of Weed et al. inoperable for its intended purpose.

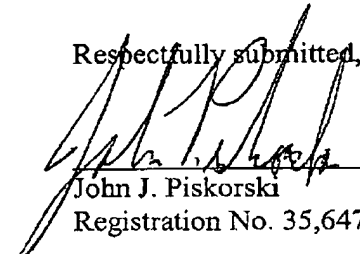
Further, the suggested combination of Weed et al. with Kuchta is improper under 35 U.S.C. §103 because it would require a substantial reconstruction and redesign of the elements shown in Weed et al. as well as a change in the basic principles under which Weed et al. was designed. See *In re Ratti*, 270 F.2d 810, 813, 123 U.S.P.Q. 349, 352 (C.C.P.A. 1959). Since Weed et al. are directed to a composition which is sensitive to light in the IR region of the spectrum, not the visible region as the compositions of Kuchta, to substitute the visible light

sensitive sensitizers of Kuchta for the IR sensitive compounds of Weed et al. would require a substantial reconstruction and redesign of the elements of Weed et al. Accordingly, the combination of Weed et al. with Kuchta is improper under 35 U.S.C. §103.

SUMMARY

Therefore, for the foregoing reasons, it is respectfully submitted that the Board reverse the Final Rejection in this application.

Respectfully submitted,



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VIII. CLAIMS APPENDIX

1. A method comprising:
 - c) applying an imaging composition comprising one or more cyclopentanone based conjugated photosensitizers and one or more reducing agents chosen from quinone compounds and acyl esters of triethanolamines to a work piece; and
 - d) projecting a 3-D image with a laser onto the imaging composition at 5 mW or less to affect a color or shade change in the imaging composition to form an image on the imaging composition.
2. The method of claim 1, wherein the 3-D image is selectively projected on the imaging composition.
4. The method of claim 1, wherein the imaging composition further comprises oxidizing agents, color formers, film forming polymers, plasticizers, flow agents, organic acids, chain transfer agents, adhesion promoters, adhesives, surfactants, rheology modifiers, thickeners, and diluents.
5. A method comprising:
 - a) providing an imaging composition comprising one or more cyclopentanone based conjugated photosensitizers and one or more reducing agents chosen from quinone compounds and acyl esters of triethanolamines, the imaging composition is applied to a film substrate with an adhesive applied to an opposite side of the film substrate;
 - b) applying the imaging composition on the film substrate to a work piece;
 - c) providing a 3-D imaging system for projecting a 3-D image with a laser onto the imaging composition;
 - d) measuring a distance between a projector of the 3-D imaging system and at least one reference sensor on the work piece;
 - e) applying algorithms to position the 3-D image onto the imaging composition; and
 - f) applying the 3-D image onto the imaging composition at 5 mW or less to affect a color or shade change in the imaging composition to form an image on the imaging composition.
6. The method of claim 5, wherein the algorithms are coordinate system transforms.
7. The method of claim 5, wherein the distance between the projector and the at least one reference sensor on the work piece is determined by a range-finding system.

10. The method of claim 5, wherein the amount of energy is at least $0.2\text{mJ}/\text{cm}^2$.
19. The method of claim 5, further comprising a step of removing unwanted portions of the imaging composition from the work piece to form indicators on the work piece.
20. The method of claim 19, further comprising a step of drilling holes at the indicators for joining fasteners to the work piece.

IX. EVIDENCE APPENDIX

No evidence was submitted pursuant of §§ 1.130, 1.131 and 1.132.

X. RELATED PROCEEDINGS APPENDIX

There is no decision by the Board on the appeal for related application serial numbers 11/378,918, 11/378,919 and 11/378,933.